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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,121	11/27/2001	Jeffrey B. Parham	212160	9771

23460 7590 12/30/2004

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EXAMINER

DOAN, DUYN MY

ART UNIT PAPER NUMBER

2143

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	09/995,121	PARHAM, JEFFREY B.	
	Examiner	Art Unit	
	Duyen M Doan	2143	

-- The MAILING DATE of this communicati n appears on the c ver sheet with the c rrespondence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/2/04, 10/20/03</u> | 6) <input type="checkbox"/> Other: _____ |

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Detail Action

Claims 1-9 are presented for examination.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 1 - 9** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 - 6 of U.S. Patent No.

6643670 Although the conflicting claims are not identical, they are not patentably distinct from each other, because they are directed to substantially the same invention and recites only obvious differences. The differences between two are that the application, 09995121, added the timestamp to the replica partner vector table whereas the Patent No. 6643670 teaches the up-to-day vector table.

The corresponding claims are as follows:

Application, 09995121	Patent No. 6,643,670
A method ... plurality of servers, database... replicate partner vector table... update sequence numbers	A method... plurality of servers, database, attribute value table, update sequence numbers...

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have including a timestamp, comparing the timestamp in the replica partner vector table as well as calculating the difference between the timestamp and the current time for the purpose of identify the failure of replication object efficiently.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim1-3,6,7,8,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (us pat 5713017) and John Fontana (how to avoid directory service headaches), and further in view of Lever (us pat 5944840).

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As regarding claim 1, Lin et al taught a method for monitoring replication latency in a computer system comprising a plurality of servers connected by a plurality of data links, and wherein the servers periodically replicate object updates with one another and maintain an update sequence number that is increased upon update to the server's replica of a database (col.6, line 1-25), the method comprising:

second maintaining, by each of the plurality of servers, a replica partner vector table that includes for each other server from which the server replicates, the update sequence number of such other server at a time of a most recent replication from such other server or the timestamp of the last successful replication attempt with such other server (col.7, line 11-67).

Initiating, by a local server, replication with a remote server by transmitting a copy of the replica partner vector table of the local server to the remote server (col.8, line 39-46).

Comparing, by the local server, the update sequence number numbers and timestamps (*see timestamp in Fontana reference*) in the replica partner vector table received from the local server to the update sequence numbers and timestamps in the replica partner vector table of the remote server (col.8, line 30-46).

Updating, by the local server, the replica partner vector table received from the local server (col.8, line 30-46).

Transmitting, by the remote server, a copy of the updated replica partner vector table and object updates to the local server (col.8, line 30-46, figure 1, step 163).

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Improving, by local server, upon receiving the updated replica partner vector from the remote server, update sequence numbers or timestamps in the partner vector table of the local server (col.8, line 30-46, figure 1, step 163).

Lin et al taught the invention substantially as claimed. However, Line et al did not expressly teach a timestamp that is posted upon each update to the server's database. Fonata however taught a timestamp that is posted upon each update to the server's database (*Novell timestamps each update and uses the time to propagate changes* (see Fontana page 39, col.1)).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Lin et al with the teachings of Fontana in order to timestamp every update with the increment of sequence number. Since this time sync feature ensures that all the servers are basically set at the same time (see Fontana page 39, col.2).

The combination of Lin et al and Fontana taught the invention substantially as claimed, however, the combination of Lin et al and Fontana did not expressly teach calculating by the local server, a difference between the timestamp for each server in the replica partner vector and a current time.

Lever taught calculating by the local server, a difference between the timestamp for each server in the replica partner vector and a current time (col.2, line 65-67, col.3, line 1-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify combined method of Lin et al and Fontana with the teachings of

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Lever to include the calculation of difference between the timestamp and current time because as Lever mentioned a communication link can suffer timing problems that cause a loss of transmitted data... Since the typical watch dog timer does not provide for tracking and storing the latency times for each interrupt the user timer cannot determine if the latency has change... (see Lever col.2, line 7-57).

As regarding claim 2, Lin et al - Fontana - Lever taught comprising comparing, by the local server, the difference to a maximum allowable latency time period (see Lever col.3, line 38-42). The same motivation that was utilized in the combination of claim 1, applies equally as well to claim 2.

As regarding claim 3, Lin et al - Fontana - Lever taught generating, by the local server, an alert if the difference is greater than the maximum allowable latency time (see Lever figure 4, step 133, 135). The same motivation that was utilized in the combination of claim 1, applies equally as well to claim 3.

As regarding claim 6, Lin et al - Fontana - Lever taught wherein the alert generated is a message displayed on a user's computer screen (see Lever col.3, line 40-42). The same motivation that was utilized in the combination of claim 1, applies equally as well to claim 6.

As regarding claim 7, Lin et al taught wherein the alert generated is a broadcast message to all servers in the computer system (col.8, line 55-58).

As regarding claim 8, is rejected for the same reason as claim 1.

As regarding claim 9, is rejected for the same reason as claim 1.

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Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al, Fontana and Lever as applied to claims 1,2,3 above, and further in view of Landan (us pat 6449739).

As regarding claim 4, Lin et al, Fontana, and Lever taught all the limitation of claim 1,2,3 above, but they did not teach wherein the alert generated is an email message sent to a network administrator.

Landan taught wherein the alert generated is an email message sent to a network administrator (col.3, line 45-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Lin et al, Fontana and Lever with the teachings of Landan to email the alert to the network administrator because a person with ordinary skill in the art would realize that email is a convenient way to communicate over the network.

As regarding claim 5, is rejected for the same reason as claim 4.

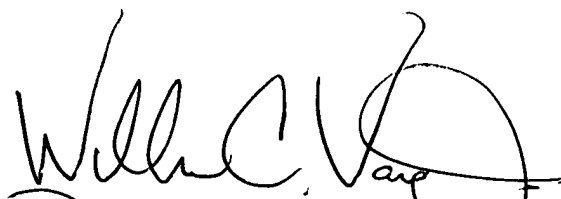
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 571 272 3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Duyen Doan
Art unit 2143



William C. Vane
Primary Examiner
Art Unit 2143